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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,308	03/10/2004	Seela Raj D Rajaiah	70040140-1	4414

7590 03/09/2006  
AGILENT TECHNOLOGIES, INC.  
Legal Department, DL 429  
Intellectual Property Administration  
P.O. Box 7599  
Loveland, CO 80537-0599

EXAMINER

DANIELS, ANTHONY J

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/797,308

Applicant(s)

RAJAIAH ET AL.

Examiner

Anthony J. Daniels

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION*****Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/27/2006 has been entered.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuchi (US 20020054220) in view of Tamune (US # 6,940,556).

Claims 8-13 will be discussed first.

As to claim 8, Takeuchi teaches a device that takes an image (Figure 1, [0034], Lines 1-5), comprising: a color filter array that captures an image (Figure 3, image pickup data unit "113"; Figure 5, [0048]); a color sensor that detects a plurality of color components of incident light (Figure 3, image pickup data unit "101"; Figure 5, [0033]), a converter that generates an average intensity value for each of the plurality of color components (Figure 1, average processing unit "105"; [0035], Lines 7-9); and, a white

Art Unit: 2615

balance calculator (Figure 1, white balance control value operating unit “111”) that uses the average intensity values for the plurality of color components to calculate a white balance for the image captured by the color filter array ([0046]). The claim differs from Takeuchi in that it further requires that the color sensor is separate from and not part of the color filter array.

In the same field of endeavor, Tamune teaches a digital camera (Figure 1) which performs white balance correction on a main image signal captured by a main image capturing device (Figure 1, image capturing device for photographing “73”) using a separate image capturing device for white balance calculation (Figure 1, Figure 3, image capturing device for scene analysis “86”; Col. 3, Lines 56-62). In light of the teaching of Tamune, it would have been obvious to one of ordinary skill in the art to use a separate image capturing device for white balance calculation and feed the image signals to the image pickup data input “113” of Takeuchi, because an artisan of ordinary skill in the art would recognize that such a configuration would provide for a reduction of the length of time required for image processing which is implemented by analyzing the photographic scene (see Tamune, Col. 1, Lines 56-60).

Although Tamune does not state it explicitly, **Official Notice** is taken that providing an amplifier on a CCD imager, which amplifies R, G and B values as they are transferred out of the device, is well known and expected in the art. One of ordinary skill in the art would have been motivated to do this, because amplifiers provide a pixel signal which is amplified to an appropriate range for A/D conversion.

As to claim 9, Takeuchi teaches a device as in claim 8: wherein each of the plurality of color components is an analog value (see Takeuchi, [0035]; *{When the image*

Art Unit: 2615

*data is picked up, it is inherent at some time the plurality of color components are analog values.}); and, wherein each of the average intensity values is a digital value (see Takeuchi, [0033], [0035], Lines 7-9; {The average processing unit performs its function after the color components have converted to digital form.}).*

As to claim 10, Takeuchi teaches a device as in claim 8 wherein the device is a digital camera (see Takeuchi, [0034], Lines 1-5).

As to claim 11, Takeuchi teaches a device as in claim 8 wherein the plurality of color components includes a red component, a blue component, and a green component (see Takeuchi, Figure 5; [0033]).

As to claim 12, Takeuchi teaches a device as in claim 8: wherein the plurality of color components include a red component, a green component, and a blue component (see Takeuchi, Figure 5; [0033]); and, wherein the average intensity values include an average red intensity value derived from the red component, an average green intensity value derived from the green component and an average blue intensity value derived from the blue component (see Takeuchi, [0035], Lines 7-9; *{The average red, blue, and green intensity values are derived from the digital red, blue, and green digital intensity values which are derived from the analog red, blue, and green intensity values.}*).

As to claim 13, Takeuchi teaches a device in claim 12: wherein the red component, the green component, and the blue component are analog values (see Takeuchi, [0035]; *{When the image data is picked up, it is inherent at some time the plurality of color components are an analog value.}*); and, wherein the average red intensity value, the average green intensity value, and the average blue intensity value are

Art Unit: 2615

digital values (see Takeuchi, [0033], [0035], Lines 7-9; *{The average processing unit performs its function after the color components have converted to digital form.}*).

As to claims 1-6, claims 1-6 are method claims corresponding to the apparatus claims 8-13, respectively. Therefore, claims 1-6 are analyzed and rejected as previously discussed with respect to claims 8-13, respectively.

As to claim 7, Takeuchi teaches a method as in claim 1 wherein capturing the image and detecting the plurality of color components are performed simultaneously allowing for parallel processing (see Tamune, Figure 1, image capturing device for scene analysis "86" and image capturing device for photography "73"; see Takeuchi, Figure 1).

As to claim 14, Takeuchi teaches a device as in claim 8 wherein the color sensor includes, for each color component, a photo sensor with an integrated filter (see Takeuchi, Figure 5; [0033]).

As to claims 15-20, the limitations in claims 15-20 can be found in claims 8-13, respectively. Therefore, claims 15-20 are analyzed and rejected as previously discussed with respect to claims 8-13, respectively.

### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The examiner has provided 3 references among many that teach amplifiers on a CCD sensor.

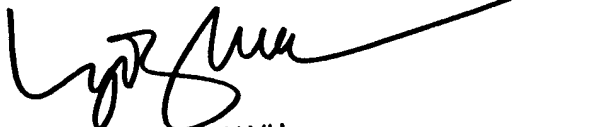
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony J. Daniels whose telephone number is (571) 272-7362. The examiner can normally be reached on 8:00 A.M. - 5:30 P.M..

Art Unit: 2615

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc-Yen Vu can be reached on (571) 272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AD  
2/24/2006



NGOC-YEN VU  
SUPERVISORY PATENT EXAMINER